

REMARKS

Upon entry of this Response, claims 1-29 remain pending in the present patent application.

1. INDICATION OF ALLOWABLE SUBJECT MATTER

In the prior Office Action, claim 29 was indicated to be allowed, and claims 3-4 were indicated to be allowable if rewritten to include all of the limitations of the base claim and any intervening claims.

In that it is believed that every rejection and objection has been overcome, it is respectfully submitted that each of the claims that remains in the case is presently in condition for allowance.

2. RESPONSE TO REJECTION OF CLAIMS UNDER 35 U.S.C. § 103

Claims 1-2 and 5-28 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over *Hamiti* (U.S. Patent Publication No. 2004/0047437 A1) in view of *Honeisen* (U.S. Patent Publication No. 2003/0115332).

a. Claim 1

As provided in independent claim 1, Applicant claims:

Process for monitoring the quality of service of a communication through a communication network, said process being executed in an end-user terminal and comprising the steps of:

- establishing a session between a first end-user terminal and a second end-user terminal via a signaling plane using a session initiation protocol;

- monitoring the quality of service of the communication during said session;

- ***transmitting information representative of said quality of service during said session using said signaling plane, wherein the QoS information is transmitted within the header of a session initiation protocol message, so that all parties share the same information.***

(Emphasis added).

Applicant respectfully submits that independent claim 1 is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least “transmitting information representative of said quality of service during said session using said signaling plane, wherein the QoS information is transmitted within the header of a session initiation protocol message, so that all parties share the same information,” as emphasized above.

Hamiti describes that a “Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals.” Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is “used to monitor quality of service (QoS) and to give information about the participants of a communication session.” *Hamiti* states that “[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data.” Para. 0089. As such, *Hamiti* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring of quality of service. Accordingly, *Hamiti* fails to teach or suggest at least “transmitting information representative of said quality of service during said session using said signaling plane, wherein the QoS information is transmitted within the header of a session initiation protocol message, so that all parties share the same information,” as recited in claim 1.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least “transmitting information representative of said quality of service during said session using said signaling plane, wherein the QoS information is transmitted within the header of a session initiation protocol message, so that all parties share the same information,” as recited in claim 1.

As a result, claim 1 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 1 is respectfully requested.

b. Claims 2 and 5-11

Claim 1 is allowable over the cited art of record for at least the reasons given above. Since claims 2, 5-7, and 10-11 depend from claim 1 and recite additional features, claims 2, 5-7, and 10-11 are allowable as a matter of law over the cited art of record.

c. Claim 12

As provided in independent claim 12, Applicant claims:

Process for monitoring the quality of service of a communication through a communication network, said process being executed in a session endpoint and comprising the steps of:

- establishing a session between a first session endpoint and a second session endpoint via a signaling plane;
- ***measuring at at least one of the session endpoints the quality of service of the communication and/or the related signalling;***
- ***transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information.***

(Emphasis added).

Applicant respectfully submits that independent claim 12 is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least "measuring at at least one of the session endpoints the quality of service of the communication and/or the related signaling" and "transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information," as emphasized above.

Rather, *Hamiti* describes that a "Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate

to voice and multimedia codecs supported by the end terminals." Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is "used to monitor quality of service (QoS) and to give information about the participants of a communication session." *Hamiti* states that "[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data." Para. 0089. As such, *Hamiti* does not disclose that a signaling plane in general or a header of a signaling message in particular is used for monitoring of quality of service. Accordingly, *Hamiti* fails to teach or suggest at least "transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information," as recited in claim 12. Moreover, *Hamiti* fails to disclose that a session endpoint measures quality of service of a communication or signaling. For at least this reason, *Hamiti* does not teach or suggest "measuring at at least one of the session endpoints the quality of service of the communication and/or the related signaling," as recited in claim 12.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that a signaling plane in general or a header of a signaling message in particular is used for monitoring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least "transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information," as recited in claim 12. Moreover, *Honeisen* fails to disclose that a session endpoint measures quality of service of a communication or signaling. For at least this reason, *Honeisen* individually or in combination with *Hamiti* does not teach or suggest "measuring at at least one of the session endpoints the quality of service of the communication and/or the related signaling," as recited in claim 12.

As a result, claim 12 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 12 is respectfully requested.

d. Claims 13-16

Claim 12 is allowable over the cited art of record for at least the reasons given above. Since claims 13-16 depend from claim 12 and recite additional features, claims 13-16 are allowable as a matter of law over the cited art of record.

e. Claim 17

As provided in independent claim 17, Applicant claims:

An end user terminal comprising means to monitor QoS by:

- establishing a session between a first session endpoint and a second session endpoint via a signaling plane;
- ***measuring the quality of service of the communication and/or the related signalling;***
- ***transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information.***

(Emphasis added).

Applicant respectfully submits that independent claim 17 (which was formerly numbered as claim 18) is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least “measuring the quality of service of the communication and/or the related signaling” and “transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information,” as emphasized above.

Hamiti describes that a “Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals.” Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is “used to monitor quality of service (QoS)

and to give information about the participants of a communication session." *Hamiti* states that "[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data." Para. 0089. As such, *Hamiti* does not disclose that a signaling plane in general or a header of a signaling message in particular is used for monitoring of quality of service. Accordingly, *Hamiti* fails to teach or suggest at least "measuring the quality of service of the communication and/or the related signaling" and "transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information," as recited in claim 17.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that a signaling plane in general or a header of a signaling message in particular is used for monitoring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least "transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information," as recited in claim 17. Moreover, *Honeisen* fails to disclose that a session endpoint measures quality of service of a communication or signaling. For at least this reason, *Honeisen* individually or in combination with *Hamiti* does not teach or suggest "measuring the quality of service of the communication and/or the related signaling," as recited in claim 17.

As a result, claim 17 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 17 is respectfully requested.

e. Claims 18-20

Claim 17 is allowable over the cited art of record for at least the reasons given above. Since claims 18-20 depend from claim 17 and recite additional features, claims 18-20 are allowable as a matter of law over the cited art of record.

f. Claim 21

As provided in independent claim 21, Applicant claims:

A computer readable medium encoded with a computer program comprising program code elements for causing, when executed, a computer to monitor QoS using a process comprising:
establishing a session between a first session endpoint and a second session endpoint via a signaling plane;
measuring the quality of service of the communication and/or the related signalling; and
transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information.

(Emphasis added).

Applicant respectfully submits that independent claim 21 is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least “transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information,” as emphasized above.

Rather, *Hamiti* describes that a “Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals.” Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is “used to monitor quality of service (QoS) and to give information about the participants of a communication session.” *Hamiti* states that “[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data.” Para. 0089. As such, *Hamiti* does not disclose that a signaling plane in general or a header of a signaling message in particular is used for monitoring of quality of service. Accordingly, *Hamiti* fails to teach or suggest at least “transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information,” as recited in claim 21.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring or measuring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least “transmitting QoS information representative of said measured quality of service in the header of the messages used in set-up or teardown of the session, so that all parties to the session receive said QoS information,” as recited in claim 21.

As a result, claim 21 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 21 is respectfully requested.

g. Claims 22-25

Claim 21 is allowable over the cited art of record for at least the reasons given above. Since claims 22-25 depend from claim 21 and recite additional features, claims 22-25 are allowable as a matter of law over the cited art of record.

h. Claim 26

As provided in independent claim 26, Applicant claims:

A process for monitoring the quality of service of a communication through a communication network, said process being executed in a proxy server and comprising the steps of: ***extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters; and displaying said parameters to a user via a user interface.***

(Emphasis added).

Applicant respectfully submits that independent claim 26 is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least “extracting QoS information representative of measured quality of service measured at

one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters; and displaying said parameters to a user via a user interface," as emphasized above.

Hamiti describes that a "Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals." Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is "used to monitor quality of service (QoS) and to give information about the participants of a communication session." *Hamiti* states that "[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data." Para. 0089. As such, *Hamiti* does not disclose that a header of a message used to set-up or teardown a session is used to transport QoS information representative of measured quality of service measured at an endpoint. Accordingly, *Hamiti* fails to teach or suggest at least "extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters; and displaying said parameters to a user via a user interface," as recited in claim 26.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring or measuring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least "extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters; and displaying said parameters to a user via a user interface," as recited in claim 26.

As a result, claim 26 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 26 is respectfully requested.

i. Claim 27

As provided in independent claim 27, Applicant claims:

A proxy server comprising means to monitor QoS by: ***extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface.***

(Emphasis added).

Applicant respectfully submits that independent claim 27 is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least “extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface,” as emphasized above.

Hamiti describes that a “Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals.” Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is “used to monitor quality of service (QoS) and to give information about the participants of a communication session.” *Hamiti* states that “[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data.” Para. 0089. As such, *Hamiti* does not disclose that a header of a message used to set-up or teardown a session is used to transport QoS information representative of measured quality of service measured at an endpoint. Accordingly, *Hamiti* fails to teach or suggest at least “extracting QoS information representative of measured quality of

service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface," as recited in claim 27.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring or measuring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least "extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface," as recited in claim 27.

As a result, claim 27 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 27 is respectfully requested.

j. Claim 28

As provided in independent claim 28, Applicant claims:

A computer readable medium encoded with a computer program comprising program code elements for causing, when executed, a computer to monitor QoS by ***extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface.***

(Emphasis added).

Applicant respectfully submits that independent claim 28 (which was formerly numbered as claim 29) is allowable for at least the reason that *Hamiti* in view of *Honeisen* does not disclose, teach, or suggest at least "extracting QoS information

representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface," as emphasized above.

Hamiti describes that a "Session Initiation Protocol (SIP) represents a protocol which may be used e.g. for call and connection establishment as well as for transport of endpoint capability information. Such capability information may e.g. relate to voice and multimedia codecs supported by the end terminals." Para. 0010. *Hamiti* further describes that RTP control protocol (RTCP) is "used to monitor quality of service (QoS) and to give information about the participants of a communication session." *Hamiti* states that "[p]resent proposals for the packet-switched speech transmission makes use of SIP/SDP for call control and RTP/RTCP protocols for the transmission of speech data." Para. 0089. As such, *Hamiti* does not disclose that a header of a message used to set-up or teardown a session is used to transport QoS information representative of measured quality of service measured at an endpoint. Accordingly, *Hamiti* fails to teach or suggest at least "extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface," as recited in claim 28.

Further, *Honeisen* describes the creation of a communication session between communication devices. Accordingly, describes that SIP INVITE messages may contain parameters used in creation of the session, such as parameters specifying QoS limitations (e.g., maximum bandwidth allowed). See para. 0115. As such, *Honeisen* does not disclose that the SIP in general or a header of the SIP in particular is used for monitoring or measuring of quality of service. Accordingly, *Honeisen* individually or in combination with *Hamiti* fails to teach or suggest at least "extracting QoS information representative of measured quality of service measured at one or more session endpoints from the headers of one or more messages used in set-up or teardown of a session; processing said extracted QoS data to produce displayable QoS parameters and displaying said parameters to a user via a user interface," as recited in claim 28.

As a result, claim 28 is patentable over *Hamiti* in view of *Honeisen*, and the withdrawal of the rejection of claim 28 is respectfully requested.

CONCLUSION

For at least the reasons provided above, Applicant respectfully submits that all rejections have been traversed, rendered moot, and/or accommodated, and that the now pending claims are in condition for allowance. Favorable reconsideration and allowance of the present application and all pending claims are hereby courteously requested. If, in the opinion of the Examiner, a telephonic conference would expedite the examination of this matter, the Examiner is invited to call the undersigned attorney at (770) 933-9500.

Respectfully submitted,

A handwritten signature in dark ink, appearing to read 'Charles W. Griggers', is written over a horizontal line.

Charles W. Griggers
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